Calendar No. 541

97TH CONGRESS
2d Session

SENATE

REPORT No.
97-381

FEDERAL PATENT POLICY

REPORT

together with

ADDITIONAL AND MINORITY VIEWS

OF THE

SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ON

S. 1657
Entitled the "Uniform Science and Technology Research and Development Utilization Act".

MAY 5 (legislative day, APRIL 18), 1982.—Ordered to be printed

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U.S. GOVERNMENT PRINTING OFFICE
91-376 O WASHINGTON : 1982

S263-9

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97TH CONGRESS
2d Session

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REPORT
No. 97-381

UNIFORM SCIENCE AND TECHNOLOGY RESEARCH AND DEVELOPMENT UTILIZATION ACT

MAY 5 (legislative day, APRIL 13), 1982.—Ordered to be printed

Mr. PACKWOOD, from the Committee on Commerce, Science, and Transportation, submitted the following

REPORT

together with

ADDITIONAL AND MINORITY VIEWS

[To accompany S. 1657]

The Committee on Commerce, Science, and Transportation, to which was referred the bill (S. 1657) a bill entitled the "Uniform Science and Technology Research and Development Utilization Act," having considered the same, reports favorably thereon with an amendment in the nature of a substitute and recommends that the bill do pass.

PURPOSE OF BILL

The purpose of this bill is to ensure that the results of Government funded research conducted under contracts, grants or cooperative agreements are governed by policies that foster their transfer into the economy in the form of new technologies, products and processes. In particular, it is designed to ensure that the incentives of the U.S. patent system encourage private investment. The Committee has found that current policies and practices governing the rights to inventions made under Government contracts often stifle rather than promote the application of these results. This bill is intended to reverse this situation, while also establishing appropriate safeguards to protect the public interest.

S. 1657, as reported, establishes a uniform and effective policy and an institutional framework to implement these policies. The bill, with certain exceptions, guarantees Federal contractors and grantees a first right of refusal to title to their inventions. The Federal Government receives, at the very least, a royalty free, non-exclusive license to the patented invention for its own use.

Section 301(a) of the bill specifies situations in which the Federal agency has the discretion to require that title to a contractor's invention be transferred to the Government. Several of these are exceptions included in Public Law 96-517 and others have been added as a result of information received during hearings and from experience gained during the development of implementing regulations under that act.

The exceptions derived from Public Law 96-517 include situations in which such action is necessary to protect the security of intelligence and counterintelligence activities. Agencies may also take title at the time of contracting or otherwise place limitations in the contract on the rights normally to be left with the contractor if, on a case-by-case basis, the agency has determined there are "exceptional circumstances requiring such action to better promote the policy and objectives of section 101(5) of this act."

The agencies shall also have the discretion to retain title to inventions if the contractor is not located or does not have a place of business in the United States or if the contractor is a foreign government. The agency may also limit the rights of a contractor if necessary to fulfill formal or international agreements of cooperation in science and technology and rights greater than a non-exclusive license are necessary to fullfill the international agreement.

These determinations are discretionary, and must be reported to the Secretary of Commerce. If the Secretary judges that an individual determination or pattern of determinations is contrary to the intent of the bill, the agency and the Director of OMB will be so advised, and corrective actions may be recommended. The Director is authorized to issue guidelines in response to limit exercise of the section 301(a) provision.

The contractor will be allowed to retain title to its own invention, subject to the exceptions and limitations noted. Where the Government assumes title, the contractor retains a non-exclusive license to use of the invention.

There may also be occasions when the Government may waive certain of its rights if doing so would serve the interest of the general public, or because the Government's participation is limited through a cost-sharing cosponsorship or joint venture. Waiver of any right to protect the public interest is contingent upon a determination by the agency that doing so will promote availability of the research results; promote commercial utilization, encourage and broaden participation in the research programs, or foster competition.

The government has the right to "march-in" where a contractor has not taken effective steps to commercialize an invention to which he holds title. In these cases the government may license or require the contractor to license another qualified applicant. The government may also march-in to address serious health or safety

needs or to meet requirements for public use specified by federal regulations. Such determinations are subject to judicial review.

NEED FOR THE LEGISLATION

It is widely rcognized that the rate of increase in American productivity is growing at a slower rate than anytime in th post World War II era and less than that of most other industrialized nations. There is no single explanation or solution for this lag in productivity, but it is clear that an important factor affecting productivity and economic vitality is the success of commercializing innovative products, processes and technologies.

The U.S. Government currently supports over $40 billion of research and development, most of it performed through contracts, grants, and cooperative agreements. These research and development efforts frequently result in inventions with potential significant commercial applications. However, current Federal policy with respect to the allocation of rights to the results of federally sponsored research and development varies widely among agencies and often inhibits the commercial utilization of these results.

The policy of the Federal Government has generally been to require that title to a contractor's invention made under a Federal contract, be transferred to the Government. Ownership to thousands of inventions have been acquired in this manner, with fewer than 5 percent of these inventions ever being successfully commercialized. Testimony presented to the Committee indicates that usually these inventions require significant amounts of risk capital to develop into a product or process that can be brought to the marketplace.[1] With the Federal Government holding title, and offering nonexclusive licenses for its use, there is little economic incentive for a company to risk the cost to develop these inventions.

LEGISLATIVE HISTORY

In the 95th Congress, Senator Schmitt introduced S. 3627, Science and Technology Research and Development Utilization Policy Act. That bill constituted an effort to establish a uniform Federal policy toward the results of inventions developed under Federal R & D contracts. The same initiative was introduced in the 96th Congress as S. 1215. Hearings were held in the summer and fall of 1979, before the Subcommittee on Science, Technology, and Space. Although this bill was not enacted into law, a more limited approach was approved by the Senate to become Public Law 96-517. That act only addressed universities and small businesses involved in the performance of Federal R & D contracts, granting them, in most cases, a first right of refusal to title in inventions made in the course of that work. That act applies only to a small section of the private sector which performs work for the Government. A far greater portion of the $40 billion being spent by the Federal Government for R & D goes to other than universities, nonprofit organizations and small businesses.

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[1] Cruzan Alexander, "Federal Patent Policy," U.S. Senate Committee on Commerce, Science, and Transportation, hearing, Pt. 2, serial No. 97-70, p. 54.

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For these reasons, S. 1657, "Uniform Science and Technology Research and Development Utilization Act," was introduced by Senator Harrison Schmitt, on September 23, 1981, in order to address all Government funded research performers, and thereby establish a uniform Government-wide policy. On the same day Congressman Allen Ertel introduced a companion bill, H.R. 4564 in the House of Representatives.

Hearings were held before the Senate Committee on Commerce, Science, and Transportation on July 28, 1981 and jointly with the House Committee on Science and Technology, on September 30, 1981. The Committee ordered the bill reported on March 10, 1982.

RELATIONSHIP OF S. 1657 TO PUBLIC LAW 96-517

Public Law 96-517, enacted in 1980, and referred to in a number of places in this report gives small business firms and nonprofit organizations (including universities) the right to retain title to inventions made under Government sponsorship with limited exception. As originally introduced, S. 1657 would have repealed those sections of Public Law 96-517 dealing with Government patent policy and would have brought all contractors and grantees under the provisions of S. 1657. However, the Committee has amended S. 1657 to leave Public Law 96-517 intact with certain amendments. The Committee has concluded that there are certain features of Public Law 96-517 that are uniquely appropriate to small business firms and nonprofit organizations which should be retained. The Committee also concluded that the licensing authorities and procedures of Public Law 96-517 should be retained. Accordingly, the Committee has substituted amendments to Public Law 96-517 in lieu of its repeal. These amendments revise certain definitions and other provisions of Public Law 96-517 so as to make that law and Title III of S. 1657 generally consistent and amenable to consistent and uniform administration by the Director of OMB and the agencies.

EFFECT OF COMMITTEE AMENDMENT

The Committee amendment to S. 1657 strikes all after the enacting clause and inserts new text. The amendment incorporates a number of technical changes as well as some substantive amendments recommended by the Committee after consideration of hearing testimony. The following changes to S. 1657 as originally introduced have been effected:

1. "Contract" had included all contractors. It now excludes those groups addressed by Public Law 96-517.

The Tennessee Valley Authority has been exempted from the provisions of this bill because of its self-financing power program which receives no appropriated funds and accounts for over 95 percent of TVA's total annual expenditure.

2. The Secretary of Commerce is no longer authorized to determine with administrative finality agency-contractor disputes, or to receive fees and royalties. A more appropriate role has been given to the Secretary to consult with and advise the agencies to insure the consistent implementation of this act.

3. The agency may now retain the right to license or limit the rights of a contractor for four reasons:

—The security of intelligence operations is threatened.

—Exceptional circumstances exist which are now to be determined on a case-by-case basis.

—The contractor is not located in the United States, or is a foreign government.

—Retention of rights are necessary to fulfill an international agreement.

Two reasons for reduction of rights by the agencies have been deleted. These are if:

—The contract is to provide a product required by government regulations, or

—The contractor is a Government-owned, contractor-operated facility (GOCO).

If a product is expected to be required by Government regulations, it is assumed by the Committee that this situation would require the exercise of the exceptional circumstance provision.

It is the Committee's intent that commercial rights to results of Government supported research be transferred to the contractor with few exceptions. Research performed in Government-owned, contractor-operated facilities is no exception. The Government is not in the business of developing inventions for commercial use, and has little incentive to promote the use of patents it would retain for its own use. The Government may be a user of these inventions, and will retain a royalty-free license to use the patents. National laboratories, regardless of their funding mechanisms, should serve national interests.

The Committee intends that the balance of royalties earned on subject inventions by the contractor operating such a facility, after payment of expenses incidental to the administration of such inventions, be utilized to augment scientific research. It is expected that such an institutional incentive will enhance the productivity and contribution to technological innovation to the Nation by such research centers.

Similarly, it has been pointed out that some GOCO contractors may be doing research in fields such as the production of nuclear fuels that have been controlled by the Government for national security purposes. In such cases, the public interest might require the invocation of the "exceptional circumstance" provision. However, in general, the Committee feels that the taking of title by the Government should not be the automatic response by the agency to such circumstances. The control of this information is best addressed through laws and regulations governing the classification and handling of classified materials and through the use of secrecy orders in the patent office.

4. Information revealed in a march-in proceeding will be deemed commercial or financial information exempt from disclosure under the Freedom of Information Act (FOIA) as will that information contained in the periodic reports required of contractors regarding their efforts toward commercialization of a subject invention.

This provision was added to prevent the loss of valuable proprietary information. By deeming this information as privileged and confidential, and exempt from disclosure under FOIA, the likeli-

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hood is diminished of an arbitrary or capricious attempt to use the march-in provision initiated by a competitor.

5. The contractor is permitted a license to use his invention when the Government elects to take title to the subject invention. The amendment also provides the contractor the right to sublicense affiliates, subsidiaries and existing licensees to whom the contractor is legally obligated to sublicense.

6. When the contractor is allowed to retain title, that title shall only be subject to the limitations set forth in sections 301, 304, and 305, and such title shall not be subject to any other limitations or conditions.

This particular provision was included after extensive discussion on the issue of recoupment. The Committee is aware that some agencies currently include recoupment provisions in their research and development contracts. The Committee believes these recoupment provisions will undermine the Congressional objective of encouraging contractor-inventors to commercialize their inventions.

In hearings before the Committee, testimony was received from Gerald Mossinghoff, Commissioner of Patents who identified recoupment as a procurement issue and recommended it be considered apart from the issue of allocation of rights to inventions arising from Federal R. & D. contracts. He said, "If the purpose of the legislation is . . . to stimulate the use of new technology and to do so in a way easily understood and carried out by private concerns, whether small or large, we believe the bill should be silent on the matter of recoupment." [2]

The Commissioner expanded on this statement indicating that corporations often must choose between their privately funded and Federally funded inventions in determining which patentable inventions to develop for commercialization. The administrative complexities and uncertainties of a recoupment clause for Federally funded inventions could be a heavily weighted disincentive to undertaking the investment in and risks of development. For these reasons, the Commissioner stated further: ". . . In addition to the Federal income tax that would be part of any profits you make and any royalties you get, if you add another string in recoupment and reporting of recoupment, . . . you may well tip the balance against exploiting the Government invention." [3]

Commissioner Mossinghoff as well as the Director of the Office of Science and Technology Policy, George Keyworth noted that implementation of such a scheme would also be a heavy and expensive administrative burden for the U.S. Government. The Committee believes that such provisions discourage commercialization and should not be used as a condition of invention ownership.

7. A provision allowing the agency to march-in if they believe an antitrust situation existed has been deleted.

The Committee believes that this was an inappropriate responsibility for the agencies to assume. Section 402 provides that nothing in this act be deemed to convey to any person immunity from the antitrust laws. This is intended to be a neutral statement regard-

[2] Gerald J. Mossinghoff, "Federal Patent Policy," U.S. Senate Committee on Commerce, Science, and Transportation, hearing, Pt. 2, serial No. 97-70, p. 36.

[3] Ibid.

ing the applicability of the antitrust laws to transactions and conduct engaged in pursuant to this Act. Section 402 was substituted for the antitrust provisions (section 303(4) and 304(a)(4)) of the original bill which delegated unprecedented responsibilities to the agencies. The types of transactions and conduct subject to antitrust scrutiny will be determined by judicial interpretation of current antitrust laws.

8. Judicial review for appeal of a march-in proceeding is now provided before the Court of Claims. Originally, this was to be subject to a determination made by the Secretary after a formal hearing.

9. Provisions requiring the contractor to disclose, elect to file on or file on his invention within a "reasonable time" have been clarified to mean the contractor must:

—Disclose an invention within a reasonable time after the invention becomes known to contractor personnel charged with administering patents.

—Elect to file within 2 years after disclosure, or earlier if a statutory bar date has been initiated through publication or sale.

—File prior to any U.S. statutory bar date.

The definitions for reasonable time for electing to file, and filing on a subject invention have been taken from the regulations presently governing these procedures under Public Law 96-517. Larger contractors often experience delays in disclosing such information due to the complexity of the corporate operating practices, physical distance between laboratory and administration centers, communication and translational delays. The Committee intends that agencies not interpret this section in an overly restrictive manner which will frustrate the intent of the act. Agencies are to take into account such delays in defining reasonable time to begin at the point the invention becomes known to contractor personnel responsible for administering patents.

10. A provision has been added requiring a statement on the U.S. patent application specifying that the invention was produced with government support. This will assist in the ready identification of inventions subject to the provisions of this act.

11. The section on government licensing has been deleted from this amendment, since that authority is provided in Public Law 96-517. Instead of repealing Public Law 96-517 and addressing all contractor groups in a uniform fashion, the Committee has amended it to be consistent with the provisions of this act. Therefore the licensing authority granted the government in Public Law 96-517 remains intact.

It is the Committee's intent that agencies make every reasonable effort to promote the commercialization of Government owned inventions. Overly rigid interpretations of past laws directing such inventions to be made "freely available" have prevented on occasions, the issuance of exclusive licenses. Such licenses should be used as incentives when necessary to encourage commercialization by the private sector.

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Estimated Costs

In accordance with paragraph 11(a) of rule XXVI of the Standing Rules of the Senate and section 403 of the Congressional Budget Act of 1974, the Committee provides the following cost estimate, prepared by the Congressional Budget Office:

U.S. Congress,
Congressional Budget Office,
Washington, D.C., March 24, 1982.

Hon. Bob Packwood,
Chairman, Commerce, Science, and Transportation, U.S. Senate, 5202 Dirksen Senate Office Building, Washington, D.C.

Dear Mr. Chairman: Pursuant to Section 403 of the Congressional Budget Act of 1974, the Congressional Budget Office has reviewed S. 1657, the Uniform Science and Technology Research and Development Utilization Act, as ordered reported by the Senate Committee on Commerce, Science, and Transportation, March 10, 1982.

The purpose of S. 1657 is to establish and maintain a uniform patent policy for the management and use of the results of federally-sponsored science and technology research developments. The bill would require certain activities on the part of the Office of Management and Budget (OMB) and the Department of Commerce (DOC): however, much of the effort required of these agencies has been done or will be done pursant to Public Law 96–517, the Patent and Trademark Act of 1980. Therefore, no significant cost would be incurred by the federal government as a result of enactment of this bill.

OMB would be required to issue policies, procedures and guidelines for uniform contract policies as outlined in Title III. The Secretary of Commerce would be authorized to assist federal agencies in promoting licensing, utilization and protection of federal inventions both in the United States and abroad. The Secretary would also be required to report annually to the Congress on these activities, which would terminate seven years after date of enactment.

Title III also outlines the allocation of rights of the federal government and those of government contractors regarding the title as well as the rights to license inventions. In most cases, the contractor would have the options to retain title to inventions arising from government-sponsored research, except under certain circumstances as specified in the bill. Under current law, title to inventions is routinely retained by the government, although the Patent and Trademark Act of 1980 included provisions to give small businesses and universities a first right of refusal to title to inventions developed with the government funding. If S. 1657 is enacted, it is likely that government agencies would reduce their workload in the long run, because fewer petitions, waivers, or negotiations would be required. However, some additional resources may be meeded initially to issue and implement new regulations.

The Department of Commerce has included an estimated $400,000 in its proposed fiscal year 1983 budget request for the purpose of coordinating patent policy within the federal government. According to DOC, that level of funding in 1983 and each fiscal

year thereafter would be sufficient to carry out the provisions of Public Law 96-517 as well as the requirements of S. 1657.

Should the Committee so desire, we would be pleased to provide further details on this estimate.

Sincerely,

ALICE M. RIVLIN, *Director.*

REGULATORY IMPACT STATEMENT

In accordance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee provides the following evaluation of the regulatory impact of the legislation:

The potential economic impacts of S. 1657, as reputed, although not measurable at present, are expected to be a positive force on the national economy. This bill will initiate more private investment in research and development, leading to increased commercialization of products and processes that would languish without this incentive for investment of private sector risk capital. Lack of, or delayed utilization should be substantially reduced, especially for health, medical, and energy related discoveries, providing more benefits and less cost to our economy. Reduction in staff is expected among the agency patent attorneys who presently number almost 300. Reduction in the patent activity required by the agencies should also translate into less Government patents being filed and will therefore free more patent examiners at the Patent and Trademark Office. The overall economic impact of this bill is expected to improve this nation's technology base, stimulate productivity and lead to economic growth.

This bill should create no additional reporting or record keeping requirements which are excessive or unduly burdensome. A reduction in paperwork burden is expected for both the government agencies as well as for the contractor. A yearly report to the Congress by the Secretary of Commerce is required which will catalogue the impact of this Act on disclosures and the disposition of subject inventions.

This bill will also have no negative impact on personal privacy. Confidential business information including background rights surrounding subject inventions are meant to be protected. For this reason agencies are directed to treat such proprietary information as exempt to the Freedom of Information Act.

SECTION-BY-SECTION ANALYSIS

Section 101—Findings

Patented inventions arising from the performance of Federal R & D contracts are a valuable national resource which should be developed and commercialized for the public benefit. Currently, Federal agencies administer a number of inconsistent policies which inhibit the commercial utilization of research results. To maximize technological progress, there is a need for establishment and implementation of a Government-wide policy for the management and utilization of the results of Federal funded research and development.

Section 102—Purpose

The purpose of the act is to provide a uniform Federal policy toward title to inventions or discoveries resulting from federally sponsored research and development in order to enhance the commercial utilization of those results, as well as insure the effective implementation of the provisions of this act by monitoring regularly the effect of this policy on technology development and utilization of the results of federally-sponsored R & D.

Section 103—Definitions

The definitions are those used in Government contracts. The term "contractor" excludes nonprofit organizations and small business firms since they are presently addressed in Public Law 96-517. The term "invention" includes plant and designs as well as utility patents, but does not include inventions patentable under a foreign law but not patentable under title 35 of the United States Code.

Section 201—Responsibilities

201(a) The Director of OMB is charged with issuing the policies, procedures and guidelines to the Federal agencies to effect a uniform and consistent implementation of Title III of this act. The Committee expects that this task will most appropriately be placed with the Office of Federal Procurement Policy (OFPP), where the implementation regulations for Public Law 96-517 were promulgated. It is expected that such policies, procedures and guidelines will conform with the final implementation approach as specified in OMB circular A-124 for Public Law 96-517.

201(b) The Secretary of Commerce is authorized and directed to perform certain functions to insure the consistent application of this act. These responsibilities include: consulting with and advising agencies regarding the implementation of this act; accumulating, analyzing and disseminating data on the implementation of this act obtained from the agencies; and performing other duties as may be prescribed by the President or statute.

201(c) The Secretary is also authorized to perform certain functions to assure the effective management of Government-owned inventions. These include: assisting the agencies in promoting the licensing of these inventions as well as in seeking patent protection abroad, and consulting with and advising the agencies as to areas of research with potential for commercial utilization. The responsibilities conferred upon the Secretary are to insure that a single lead agency will exercise the oversight functions necessary to insure the consistent implementation of this act. The Committee expects that this function may most appropriately preside within the Office of Productivity, Technology and Innovation within the Commerce Department. The Secretary will monitor agency regulations and procedures for consistency with the act and shall provide recommendations to the Director of OMB and the agencies whenever it finds inconsistencies. Agencies shall fully cooperate with the Secretary, and provide him with the assistance and cooperation necessary to fulfill these responsibilities.

201(d) The Secretary is also charged with providing a yearly report to the Congress which shall include statistical information

regarding the disposition of inventions disclosed to the agencies in the performance of a federally-funded research or development contract. Inventions disclosed by small businesses and nonprofit organizations should also be included in this report, together with an analysis of the effect of this and other Federal policies on the purposes of this act. Such an analysis should include recommendations to better achieve the purposes of this act.

201(e) These authorities conferred upon the Secretary shall expire 7 years after enactment unless renewed by the Congress.

Section 301—Rights of the Government

301(a) A Federal agency is authorized under certain circumstances to acquire title, the right to license, or to limit the rights of a contractor to a subject invention. These circumstances are:

(1) When a Government authority, authorized to conduct intelligence activities, determines that limitation of contractor rights is necessary to protect the security of such activities.

(2) When the agency determines on a case by case basis that an exceptional circumstance exists which requires such action to better promote the policy and objectives of this act.

(3) When the contractor is either not located in or does not have a place of business in the United States, or is a foreign government.

(4) When the contract is entered into under a program that implements a formal international agreement or arrangement, so that rights greater than a nonexclusive license are necessary for the agency to fulfill its obligations.

The agency shall assume only the rights necessary to fulfill its contractual obligations. The use of these exceptions is discretionary, and it is not the intent of the Committee that automatic assumption of title by an agency be invoked when one of these four instances occurs.

In the first situation, section 301a(1), a Government authority may limit the rights of a contractor to an invention to protect the security of intelligence activities. The use of secrecy orders in the patent office, and the laws and regulations governing classification and handling of classified materials, may better address this concern without the agency assuming title and still provide the necessary secrecy without reducing the incentive to the contractor to produce further technological advancements.

An agency may determine that an "exceptional circumstance exists. It is expected that the "exceptional circumstance" provision will be used sparingly. By the very nature of being "exceptional," it is not possible to anticipate all circumstances which the Committee would consider "exceptional," justifying Government ownership. An example of such a situation could be when the contract calls for development of a specific product, the use of which will be required by Federal regulation. In such a case, patent incentives are probably not required to achieve commercialization.

The Committee intends and expects that the provision of "exceptional circumstance" will be invoked rarely and only to protect compelling interests of the general public. Furthermore, the exercise of this authority may not be made as to classes or categories of

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inventions but only on a case by case evaluation of a particular contract.

In the third instance, the Government would assume title to the results of work performed by foreign governments or contractors not located or having a place of business in the United States. The intent of such a provision is to prevent the loss of valuable technology abroad. Foreign governments and businesses are readily identifiable and may bid on U.S. Government contracts with the knowledge that they may only receive a license to inventions developed in the performance of that work.

The fourth instance permits the government to assume rights greater than a nonexclusive license when necessary to fulfill its obligations under an international agreement. Arrangements of cooperation in science and technology with other nations exist among several agencies. The Committee expects the agencies to limit their retained rights to only those required to fulfill their contractual agreement or formal arrangements.

Section 301(b). The rights of the Government under subsection (a) will not be exercised unless unless the agency first determines that at least one of the four conditions specified in section 301(a) exists. The agency will file, within 30 days after the award of the contract, a statement to the Secretary, indicating that such a determination has been made. This statement will include an analysis of the facts and circumstances which required such a determination and justifying the limitations and conditions being imposed. The Secretary is authorized to recommend corrective actions to the head of the agency concerned and the Director if he believes that a determination or pattern of determinations is contrary to the terms, policy or objectives of this act.

The Director is authorized to correct agency abuses of authority under section 301(a) by issuing policies, procedures and guidelines which clearly define classes of situations in which agencies are not permitted to utilize this authority.

Section 301(c). This section requires that periodic written reports be provided to the contracting agency by the contractor or its licensees of assignees. These reports will detail the commercial use or efforts toward commercial utilization of a subject invention by the contractor, his licensees or assignees. The information contained in such reports, as well as information presented to the agency under a march-in procedure, shall be treated by the Federal agency as privileged or confidential and shall not be subject to disclosure under the Freedom of Information Act. It is expected that guidelines will be developed after consultation with affected agencies and industry representatives to establish a uniform period reporting system that is responsive to the agency and not burdensome to the contractor. The Committee intends that the cost of implementing this act will be minimal for both the Government and the contractor.

Under any circumstances the Federal Government at least retains an irrevocable, nonexlusive, nontransferable, paid-up license to practice the subject invention.

Section 302—Rights of the Contractor

Section 302(a). Whenever a contractor enters into a contract, he is provided the option of retaining title to any subject invention, unless limited by those circumstances identified in section 301(a). The contractor may forfeit this right by failure to disclose or failure to elect to file, or by not filing, within a reasonable time as specified in section 305. The Government may also limit the contractor's rights by "marching in" in certain circumstances to force the licensing of a responsible applicant, as provided in section 304.

The title held by the contractor shall not be subject to limitations or conditions other than those specified in sections 301, 304, and 305. This language is intended to preclude the imposition of substantive limitations such as recoupment provisions. It is not intended to preclude the imposition of reasonable administrative provisions necessary to enable agencies to ensure that their licenses or rights are established, provided these are not inconsistent with specific conditions and policies defined in the act. For example, the standard provisions issued by the Director could require contractors to provide copies of patent applications, notify the government of filings, or place conditions upon the contractor to have appropriate arrangements with its employees to ensure that rights entitled to the government may be transferable under this act.

Section 302(b) provides that in cases where the government takes title to a subject invention, such as when an exception under section 301(a) is involved, or when the contractor chooses not to take title, the contractor will retain at least a nonexclusive license to use the subject invention, including the right to sublicense affiliates, subsidiairies and existing licensees.

Section 303—Waiver

Section 303(a) authorizes agencies to waive all or any part of the rights of the Government to a subject invention, including the governments' right to a non-exclusive license, if the agency determines that the interests of the United States and the general public will be best served thereby, or in situations in which the contractor or other cosponsors of government supported research are making a substantial independent contribution. This authority may be used at any time, at the time of contracting or after an invention is identified.

Section 303(b) requires that a record of the use of this authority is kept.

Section 303(c) requires the agency to consider certain specific objectives in exercising this authority on the basis of "the interests of the United States and the general public."

Section 304—March-In

Section 304 is designed to provide a remedy in situations in which a contractor elects to retain title to a subject invention but fails to effectively pursue the further development and commercialization of the invention either directly or through licensing efforts. The Government is authorized to require licensing to a responsible applicant of a subject invention if:

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(1) the contractor has not taken or is not expected to take effective steps to achieve practical application of the invention,

(2) necessary to alleviate serious public health or safety needs not being met by the contractor, or

(3) necessary to meet requirements for public use specified by Federal regulations which are not reasonably satisfied by the contractor.

Exercise of this right by the agencies is to be done in accordance with policies, procedures, and guidelines established by the Director, which shall be responsive to the intent of the Congress in this legislation.

Section 304(b) provides that the exercise of march-in will not be considered a dispute under the Contract Disputes Act. *De novo* review by the United States Court of Claims is also established.

Section 305—General Provisions

Section 305 requires each Federal contract to include a patent rights clause containing appropriate provisions to provide for the disclosure of inventions within a reasonable time after they are known to contractor personnel responsible for administering patents and for the timely election and filing of patent applications. The Government is authorized to take title to subject inventions in cases when the contractor fails to make timely disclosures, elections, or filings. Section 305 also requires that the contractor include a notice of the Government's interest in the specification of each U.S. patent application and any resulting patent.

Section 306—Background Rights

Section 306 provides that nothing in the act is intended to affect the rights of contractors to maintain the ownership and free use of background rights, including existing patented inventions, proprietary data and information.

In hearings before the Committee, several witnesses stated that current government policy toward these background rights, were a strong disincentive toward participation in federal contracting work. When asked to what extent Allis Chalmers Corporation pursued government sponsored research and development, Mr. Benson, Chief Patent Counsel, replied, "We pursue it in certain cases. In other cases, we refuse to participate—depending, a great deal, on what the project is, how much we have in the way of proprietary background technology. I mentioned earlier that one problem which is not dealt with here is the problem that the Government insists on taking rights to the privately funded technology of corporations as a quid pro quo for the granting of a contract." [4]

Mr. Auzville Jackson speaking for Robertshaw Controls Co. and the National Association of Manufacturers, told the Committee, "But a most important single element is that we are afraid that our proprietary positions will be weakened by the loss of some patent rights for our ongoing evolution of certain of our commercial lines." [5]

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[4] Robert Benson, "Federal Patent Policy," U.S. Senate Committee on Commerce Science, and Transportation, Part 1, Serial No. 97-70, p. 28.

[5] Ibid, p. 46.

It is the Committee's intent to eliminate any agency's practice of demanding without compelling reason background rights during contract negotiations, and thereby to encourage companies to bid on Government contracts who do not presently do so because of this policy.

Section 401—Repeal of Existing Statutory Research and Development Authorizations

Section 401 amends or repeals a series of statutory provisions containing patent policies inconsistent with or made redundant by the act. The intent of this is to provide a uniform government policy applicable to all government research and development contractors. This section also amends, rather than repeals, Public Law 96-517, to conform to the provisions specified in this act.

Section 402—Relationship to Antitrust Laws

Section 402 provides that nothing in the act shall be deemed to convey to any person immunity from civil or criminal liability, or to create any defenses, under the antitrust laws of the United States.

Section 403—Effective Date

Section 403(a) provides that the act will take effect six months after its date of enactment.

Section 403(b) authorizes agencies to allow contractors to retain title to subject inventions made under contracts predating the effective date of the act, subject to the same terms and conditions as would apply if the contract had been entered into after the effective date of the act.

Roll Call Votes in Committee

Changes in Existing Law

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new material is printed in italic, existing law in which no change is proposed is shown in roman):

The Act of August 14, 1946

Section 205 of that Act

(a) In carrying out the provisions of title II of this Act, the Secretary of Agriculture may cooperate with other branches of the Government, State agencies, private research organizations, purchasing and consuming organizations, boards of trade, chambers of commerce, other associations of business or trade organizations, transportation and storage agencies and organizations, or other persons or corporations engaged in the production, transportation, storing, processing, marketing and distribution of agriculture products whether operating in one or more jurisdictions. The Secretary of Agriculture shall have authority to enter into contracts and agreements under the terms of regulations promulgated by him with

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States and agencies of States, private firms, institutions, and individuals for the purpse of conducting research and service work, making and compiling reports and surveys, and carrying out other functions relating thereto when in his judgment the services or functions to be performed will be carried out more effectively, more rapidly, or at less cost than if performed by the Department of Agriculuture. Contracts hereunder [under this section] may be made for work to be performed within a period not more than four years from the date of any such contract, and advance, progress, or other payments may be made. The provisions of section 3648 (31 U.S.C., sec. 529) and section 3709 (41 U.S.C., sec. 5) of the Revised Statutes shall not be applicable to contracts or agreements made under the authority of this section. Any unexpended balances of appropriations obligated by contracts as authorized by this section may, notwithstanding the provisions of section 5 of the Act of June 20, 1874, as amended (31 U.S.C., sec. 713), remain upon the books of the Treasury for not more than five fiscal years before being carried to the surplus fund and covered into the Treasury. [Any contract made pursuant to this section shall contain requirements making the result of such research and investigations available to the public by such means as the Secretary of Agriculture shall determine.]

(b) * * *

THE FEDERAL COAL MINE HEALTH AND SAFETY ACT OF 1969

Section 501 of that Act

SEC. 501 (a)–(b) * * *

(c) Contracting with and grants to public and private agencies; availability of information; exceptions.—In carrying out the provisions for research, demonstrations, experiments, studies, training, and education under this section and sections 301(b) and 502(a) of this Act, the Secretary of the Interior and the Secretary of Health, Education, and Welfare in coordination with the Secretary may enter into contracts with, and make grants to, public and private agencies and organizations and individuals. [No research, demonstrations, or experiments shall be carried out, contracted for, sponsored, cosponsored, or authorized under authority of this Act, unless all information, uses, products, processes, patents, and other developments resulting from such research, demonstrations, or experiments will (with such exception and limitation, if any, as the Secretary of the Interior or the Secretary of Health, Education, and Welfare in coordination with the Secretary may find to be necessary in the public interest) be available to the general public.]

(d)–(g) * * *

NATIONAL TRAFFIC AND MOTOR VEHICLE SAFETY ACT OF 1966

Section 106 of that Act

[SEC. 106. RESEARCH, DEVELOPMENT, TESTING, AND TRAINING IN TRAFFIC AND VEHICLE SAFETY.—

[(a) The Secretary shall conduct research, testing, development, and training necessary to carry out the purposes of this title, including, but not limited to—

[(1) collecting data from any source for the purpose of determining the relationship between motor vehicle or motor vehicle equipment performance characteristics and (A) accidents involving motor vehicles, and (B) the occurrence of death, or personal injury resulting from such accidents;

[(2) procuring (by negotiation or otherwise) experimental and other motor vehicles or motor vehicle equipment for research and testing purposes;

[(3) selling or otherwise disposing of test motor vehicles and motor vehicle equipment and reimbursing the proceeds of such sale or disposal into the current appropriation available for the purpose of carrying out this title

[(b) The Secretary is authorized to conduct research, testing, development, and training as authorized to be carried out by subsection (a) of this section by making grants for the conduct of such research, testing, development, and training to States, interstate agencies, and nonprofit institutions.

[(c) Whenever the Federal contribution for any research or development activity authorized by this Act encouraging motor vehicle safety is more than minimal, the Secretary shall include in any contract, grant, or other arrangement for such research or development activity, provisions effective to insure that all information, uses, processes, patents, and other developments resulting from that activity will be made freely and fully available to the general public. Nothing herein shall be construed to deprive the owner of any background patent of any right which he may have thereunder.]

THE NATIONAL SCIENCE FOUNDATION ACT OF 1950

Section 12 of that Act

SEC. 12. PATENT RIGHTS.—

[(a) Each contract or other arrangement executed pursuant to this Act which relates to scientific research shall contain provisions governing the disposition of inventions produced thereunder in a manner calculated to protect the public interest and the equities of the individual or organization with which the contract or other arrangement is executed: *Provided, however,* That nothing in this Act shall be construed to authorize the Foundation to enter into any contractual or other arrangement inconsistent with any provision of law affecting the issuance or use of patents.]

(b) * * *

THE ATOMIC ENERGY ACT OF 1954

The table of contents of that Act

ATOMIC ENERGY ACT OF 1954

Chapter 1.—Chapter 12. * * *

Chapter 13. Patents and Inventions

Sec. 151. Military Utilization.

[Sec. 152. Inventions Conceived During Commission Contracts.]

Sec. 152. Repealed.

Sec. 153. * * *.

Section 152 of that Act

SEC. 152. INVENTIONS MADE OR CONCEIVED DURING COMMISSION CONTRACTS.—Any invention or discovery, useful in the production or utilization of special nuclear material or atomic energy, made or conceived in the course of or under any contract, subcontract, or arrangement entered into with or for the benefit of the Commission, regardless of whether the contract, subcontract, or arrangement involved the expenditure of funds by the Commission, shall be vested in, and be the property of, the Commission, except that the Commission may waive its claim to any such invention or discovery under such circumstances as the Commission may deem appropriate, consistent with the policy of this section. No patent for any invention or discovery, useful in the production or utilization of special nuclear material or atomic energy, shall be issued unless the applicant files with the application, or within thirty days after request therefor by the Commissioner of Patents (unless the Commission advises the Commissioner of Patents that its rights have been determined and that accordingly no statement is necessary) a statement under oath setting forth the full facts surrounding the making or conception of the invention or discovery described in the application and whether the invention or discovery was made or conceived in the course of or under any contract, subcontract, or arrangement entered into with or for the benefit of the Commission, regardless of whether the contract, subcontract, or arrangement involved the expenditure of funds by the Commission. The Commissioner of Patents shall as soon as the application is otherwise in condition for allowance forward copies of the application and the statement to the Commission.

[The Commisioner of Patents may proceed with the application and issue the patent to the applicant (if the invention or discovery is otherwise patentable) unless the Commission, within 90 days after receipt of copies of the application and statement, directs the Commissioner of Patents to issue the patent to the Commission (if the invention or discovery is otherwise patentable) to be held by the Commission as the agent of and on behalf of the United States.

[If the Commission files such a direction with the Commissioner of Patents, and if the applicant's statement claims, and the applicant still believes, that the invention or discovery was not made or conceived in the course of or under any contract, subcontract or arrangement entered into with or for the benefit of the Commission

entitling the Commission to the title to the application or the patent the applicant may, within 30 days after notification of the filing of such a direction, request a hearing before a Board of Patent Interferences. The Board shall have the power to hear and determine whether the Commission was entitled to the direction filed with the Commissioner of Patents. The Board shall follow the rules and procedures established for interference cases and an appeal may be taken by either the applicant or the Commission from the final order of the Board to the Court of Customs and Patent Appeals in accordince with the procedures governing the appeals from the Board of Patent Interferences.

[If the statement filed by the applicant should thereafter be found to contain fales material statements any notification by the Commission that it has no objections to the issuance of a patent to the applicant shall not be deemed in any respect to constitute a waiver of the provisions of this section or of any applicable civil or criminal statute, and the Commission may have the title to the patent transferred to the Commission on the records of the Commissioner of Patents in accordance with the provisions of this section. A determination of rights by the Commission pursuant to a contractual provision or other arrangement prior to the request of the Commissioner of Patents for the statement, shall be final in the absence of false material statements or nondisclosure of material facts by the applicant.]

THE NATIONAL AERONAUTICS AND SPACE ACT OF 1958

Section 203 of that Act

(a)-(b) * * *

(c)(1)-(2) * * *

(3) to acquire (by purchase, lease, condemnation, or otherwise), construct, improve, repair, operate, and maintain laboratories, research and testing sites and facilities, aeronautical and space vehicles, quarters and related accommodations for employees and dependents of employees of the Administration, and such other real and personal property (including patents), or any interest therein, as the Administration deems necessary within and outside the continental United States; to acquire by lease or otherwise, through the Administrator of General Services, buildings or parts of buildings in the District of Columbia for the use of the Administration for a period not to exceed ten years without regard to the Act of March 3, 1877 (40 U.S.C. 34); to lease to others such real and personal property; to sell and otherwise dispose of real and personal property [(including patents and rights thereunder)] in accordance with the provisions of the Federal Property and Administrative Service Act of 1949, as amended (40 USC 471 et seq.); and to provide by contract or otherwise for cafeterias and other necessary facilities for the welfare of employees of the Administration at its installations and purchase and maintain equipment therefor;

(4)-(13) * * *

(d) For the purpose of chapter 17 of title 35, United States Code, the Administration shall be considered a defense agency of the United States.

Section 305 of that Act

[SEC. 305. PROPERTY RIGHTS IN INVENTIONS.—

[(a) Exclusive property of United States; insurance of patent. Whenever any invention is made in the performance of any work under any contract of the Administration, and the Administrator determines that—

[(1) the person who made the invention was employed or assigned to perform research, development, or exploration work and the invention is related to the work he was employed or assigned to perform, or that it was within the scope of his employment duties, whether or not it was made during working hours, or with a contribution by the Government of the use of Government facilities, equipment, materials, allocated funds, information proprietary to the Government, or services of Government employees during working hours; or

[(2) the person who made the invention was not employed or assigned to perform research, development, or exploration work, but the invention is nevertheless related to the contract, or to the work or duties he was employed or assigned to perform, and was made during working hours, or with a contribution from the Government of the sort referred to in clause (1),

such invention shall be the exclusive property of the United States, and if such invention is patentable a patent therefor shall be issued to the United States upon application made by the Administrator, unless the Administrator waives all or any part of the rights of the United States to such invention in conformity with the provisions of subsection (f) of this section.

[(b) Contract provisions for furnishing reports of inventions, discoveries, improvements, or innovations. Each contract entered into by the Administrator with any party for the performance of any work shall contain effective provisions under which such party shall furnish promptly to the Administrator a written report containing full and complete technical information concerning any invention, discovery, improvement, or innovation which may be made in the performance of any such work.

[(c) Patent application. No patent may be issued to any applicant other than the Administrator for any invention which appears to the Commissioner of Patents to have significant utility in the conduct of aeronautical and space activities unless the applicant files with the Commissioner, with the application or within thirty days after request therefor by the Commissioner, a written statement executed under oath setting forth the full facts concerning the circumstances under which such invention was made and stating the relationship (if any) of such invention to the performance of any work under any contract of the Administration. Copies of each such statement and the application to which it relates shall be transmitted forthwith by the Commissioner to the Administrator.

[(d) Issuance of patent to applicant; request by Administrator; notice; hearing; determination; review. Upon any application as to which any such statement has been transmitted to the Administrator, the Commissioner may, if the invention is patentable, issue a patent to the applicant unless the Administrator, within ninety days after receipt of such application and statement, requests that

such patent be issued to him on behalf of the United States. If, within such time, the Administrator files such a request with the Commissioner, the Commissioner shall transmit notice thereof to the applicant, and shall issue such patent to the Administrator unless the applicant within thirty days after receipt of such notice requests a hearing before a Board of Patent Interferences on the question whether the Administrator is entitled under this section to receive such patent. The Board may hear and determine, in accordance with rules and procedures established for interference cases, the question so presented, and its determination shall be subject to appeal by the applicant or by the Administrator to the Court of Customs and Patent Appeals in accordance with procedures governing appeals from decisions of the Board of Patent Interferences in other proceedings.

[(e) False representations, request for transfer of title to Patent; notice; hearing; determination; review. Whenever any patent has been issued to any applicant in conformity with subsection (d), and the Administrator thereafter has reason to believe that the statement filed by the applicant in connection therewith contained any false representation of any material fact, the Administrator within five years after the date of issuance of such patent may file with the Commissioner a request for the transfer to the Administrator of title to such patent on the records of the Commissioner. Notice of any such request shall be transmitted by the Commissioner to the owner of record of such patent, and title to such patent shall be so transferred to the Administrator unless within thirty days after receipt of such notice such owner of record requests a hearing before a Board of Patent Interferences on the question whether any such false representation was contained in such statement. Such question shall be heard and determined, and determination thereof shall be subject to review, in the manner prescribed by subsection (d) for questions arising thereunder. No request made by the Administrator under this subsection for the transfer of title to any patent, and no prosecution for the violation of any criminal statute, shall be barred by any failure of the Administrator to make a request under subsection (d) for the issuance of such patent to him, or by any notice previously given by the Administrator stating that he had no objection to the issuance of such patent to the applicant therefor.

[(f) Waiver of rights to inventions; Inventions and Contributions Board. Under such regulations in conformity with this subsection as the Administrator shall prescribe, he may waive all or any part of the rights of the United States under this section with respect to any invention or class of inventions made or which may be made by any person or class of persons in the performance of any work required by any contract of the Administration if the Administrator determines that the interests of the United States will be served thereby. Any such waiver may be made upon such terms and under such conditions as the Administrator shall determine to be required for the protection of the interests of the United States. Each such waiver made with respect to any invention shall be subject to the reservation by the Administrator of an irrevocable, nonexclusive, nontransferrable, royalty-free license for the practice of such invention throughout the world by or on behalf of the United

States or any foreign government pursuant to any treaty or agreement with the United States. Each proposal for any waiver under this subsection shall be referred to an Inventions and Contributions Board which shall be established by the Administrator within the Administration. Such Board shall accord to each interested party an opportunity for hearing, and shall transmit to the Administrator its findings of fact with respect to such proposal and its recommendations for action to be taken with respect thereto.

[(g) License regulations. The Administrator shall determine, and promulgate regulations specifying, the terms and conditions upon which licenses will be granted by the Administration for the practice by any person (other than an agency of the United States) of any invention for which the Administrator holds a patent on behalf of the United States.

[(h) Protection of title. The Administrator is authorized to take all suitable and necessary steps to protect any invention or discovery to which he has title, and to require that contractors or persons who retain title to inventions or discoveries under this section protect the inventions or discoveries to which the Administration has or may acquire a license of use.

[(i) Administration as defense agency. The administration shall be considered a defense agency of the United States for the purpose of chapter 17 of title 35 of the United States Code.

[(j) Definitions. As used in this section—

[(1) the term "person" means any individual, partnership, corporation, association, institution, or other entity;

[(2) the term "contract" means any actual or proposed contract, agreement, understanding, or other arrangement, and includes any assignment, substitution of parties, or subcontract executed or entered into thereunder; and

[(3) the term "made," when used in relation to any invention, means the conception of first actual reduction to practice of such invention.]

Section 306 of that Act

[SEC. 306. CONTRIBUTIONS AWARDS.—

[(a) Applications; referral to Board; hearing; recommendations; determination by Administrator.—Subject to the provisions of this section, the Administrator is authorized, upon his own initiative or upon application of any person, to make a monetary award, in such amount and upon such terms as he shall determine to be warranted, to any person (as defined by section 305 for any scientific or technical contribution to the Administration which is determined by the Administrator to have significant value in the conduct of aeronautical and space activities. Each application made for any such award shall be referred to the Inventions and Contributions Board established under section 305 of this Act. Such Board shall accord to each such applicant an opportunity for hearing upon such application, and shall transmit to the Administrator its recommendation as to the terms of the award, if any, to be made to such applicant for such contribution. In determining the terms and conditions of any award the Administrator shall take into account—

[(1) the value of the contribution to the United States;

[(2) the aggregate amount of any sums which have been expended by the applicant for the development of such contribution;

[(3) the amount of any conpensation (other than salary received for services rendered as an officer or employee of the Government) previously received by the applicant for or on account of the use of such contribution by the United States; and

[(4) such other factors as the Administrator shall determine to be material.

[(b) Apportionment of awards; surrender of claims to compensation; limitation on amount; reports to Congressional Committees.—If more than one applicant under subsection (a) claims an interest in the same contribution, the Administrator shall ascertain and determine the respective interests of such applicants, and shall apportion any award to be made with respect to such contribution among such applicants in such proportions as he shall determine to be equitable. No award may be made under subsection (a) with respect to any contribution—

[(1) unless the applicant surrenders, by such means as the Administrator shall determine to be effective, all claims which such applicant may have to receive any compensation (other than the award made under this section) for the use of such contribution or any element thereof at any time by or on behalf of the United States, or by or on behalf of any foreign government pursuant to any treaty or agreement with the United States, within the United States or at any other place;

[(2) in any amount exceeding $100,000, unless the Administrator has transmitted to the appropriate committees of the Congress a full and complete report concerning the amount and terms of, and the basis for, such proposed award, and thirty calendar days of regular session of the Congress have expired after receipt of such report by such committees.]

THE ACT OF JULY 7, 1960

Section 6 of that Act

[SEC. 6. PUBLIC AVAILABILITY REQUIREMENT; NATIONAL DEFENSE; PATENT AGREEMENTS.—

[No research shall be carried out, contracted for, sponsored, cosponsored, or authorized under authority of this Act, unless all information, uses, products, processes, patents, and other developments resulting from such research will (with such exceptions and limitations, if any, as the Secretary may find to be necessary in the interest of national defense) be available to the general public. Whenever in the estimation of the Secretary the purposes of this Act would be furthered through the use of patented processes or equipment, the Secretary is authorized to enter into such agreements as he deems necessary for the acquisition or use of such patents on reasonable terms and conditions.]

THE HELIUM ACT AMENDMENTS OF 1960

Section 4 of that Act

SEC. 4. PRODUCTION OF HELIUM; MAINTENANCE AND OPERATION OF FACILITIES; RESEARCH.—

The Secretary is authorized to maintain and operate helium production and purification plants together with facilities and accessories thereto; to acquire, store, transport, sell, and conserve helium, helium-bearing natural gas, and helium-gas mixtures, to conduct exploration for and production of helium on and from the lands acquired, leased, or reserved; and to conduct or contract with public or private parties for experimentation and research to discover helium supplies and to improve processes and methods of helium production, purification, transportation, liquefaction, storage, and utilization [: *Provided, however,* That all research contracted for, sponsored, cosponsored, or authorized under authority of this Act shall be provided for in such a manner that all information, uses, products, processes, patents and other developments resulting from such research developed by Government expenditure will (with such exceptions and limitations, if any, as the Secretary may find to be necessary in the interest of national defense) be available to the general public: And provided further, That nothing contained herein shall be construed as to deprive the owner of any background patent relating thereto to such rights as he may have thereunder].

THE ARMS CONTROL AND DISARMAMENT ACT

Section 32 of that Act

[SEC. 32. PATENTS.—

All research within the United States contracted for, sponsored, cosponsored, or authorized under authority of this Act, shall be provided for in such manner that all information as to uses, products, processes, patents, and other developments resulting from such research developed by Government expenditure will (with such exceptions and limitations, if any, as the Director may find to be necessary in the public interest) be available to the general public. This subsection shall not be so construed as to deprive the owner of any background patent relating thereto of such rights as he may have thereunder.]

APPALACHIAN REGIONAL DEVELOPMENT ACT OF 1965

Section 302 of that Act

SEC. 302. (a)-(d) * * *

[(e) No part of any appropriated funds may be expended pursuant to authorization given by this Act involving any scientific or technological research or development activity unless such expenditure is conditioned upon provisions effective to insure that all information, copyrights, uses, processes, patents, and other developments resulting from that activity will be made freely available to the general public. Nothing contained in this subsection shall deprive the owner of any background patent relating to any such ac-

tivity, without his consent, of any right which that owner may have under that patent. Whenever any information, copyright, use, process, patent or development resulting from any such research or development activity conducted in whole or in part with appropriated funds expended under authorization of this Act is withheld or disposed of by any person, organization, or agency in contravention of the provisions of this subsection, the Attorney General shall institute, upon his own motion or upon request made by any person having knowledge of pertinent facts, an action for the enforcement of the provisions of this subsection in the district court of the United States for any judicial district in which any defendant resides, is found, or has a place of business. Such court shall have jurisdiction to hear and determine such action, and to enter therein such orders and decrees as it shall determine to be required to carry into effect fully the provisions of this subsection. Process of the district court for any judicial district in any action instituted under this subsection may be served in any other judicial district of the United States by the United States marshal thereof. Whenever it appears to the court in which any such action is pending that other parties should be brought before the court in such action, the court may cause such other parties to be summoned from any judicial district of the United States.]

THE FEDERAL NONNUCLEAR ENERGY RESEARCH AND DEVELOPMENT ACT OF 1974

Section 9 of that Act

SEC. 9. PATENT POLICY.—

[(a) Whenever any invention is made or conceived in the course of or under any contract of the Administration, other than nuclear energy research, development, and demonstration pursuant to the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.) and the Administrator determines that—

[(1) the person who made the invention was employed or assigned to perform research, development, or demonstration work and the invention is related to the work he was employed or assigned to perform, or that it was within the scope of his employment duties, whether or not it was made during working hours, or with a contribution by the Government of the use of Government facilities, equipment, materials, allocated funds, information proprietary to the Government, or services of Government employees during working hours; or

[(2) the person who made the invention was not employed or assigned to perform research, development, or demonstration work, but the invention is nevertheless related to the contract or to the work or duties he was employed or assigned to perform, and was made during working hours, or with a contribution from the Government of the sort referred to in clause (1).

title to such invention shall vest in the United States, and if patents on such invention are issued they shall be issued to the United States, unless in particular circumstances the Administrator waives all or any part of the rights of the United States to such invention in conformity with the provisions of this section.

[(b) Each contract entered into by the Administration with any person shall contain effective provisions under which such person shall furnish promptly to the Administration a written report containing full and complete technical information concerning any invention, discovery, improvement, or innovation which may be made in the course of or under such contract.

[(c) Under such regulations in conformity with the provisions of this section as the Administrator shall prescribe, the Administrator may waive all or any part of the rights of the United States under this section with respect to any invention or class of inventions made or which may be made by any person or class of persons in the course of or under any contract of the Administration if he determines that the interests of the United States and the general public will best be served by such waiver. The Administration shall maintain a publicly available, periodically updated record of waiver determinations. In making such determinations, the Administrator shall have the following objectives:

[(1) Making the benefits of the energy research, development, and demonstration program widely available to the public in the shortest practicable time.

[(2) Promoting the commercial utilization of such inventions.

[(3) Encouraging participation by private persons in the Administration's energy research, development, and demonstration program

[(4) Fostering competition and preventing undue market concentration or the creation or maintenance of other situations inconsistent with the antitrust laws.

[(d) In determining whether a waiver to the contractor at the time of contracting will best serve the interests of the United States and the general public, the Administrator shall specifically include as considerations—

[(1) the extent to which the participation of the contractor will expedite the attainment of the purposes of the program;

[(2) the extent to which a waiver of all or any part of such rights in any or all fields of technology is needed to secure the participation of the particular contractor;

[(3) the extent to which the contractor's commercial position may expedite utilization of the research, development, and demonstration program results;

[(4) the extent to which the Government has contributed to the field of technology to be funded under the contract;

[(5) the purpose and nature of the contract, including the intended use of the results developed thereunder;

[(6) the extent to which the contractor has made or will make substantial investment of financial resources or technology developmed at the contractor's private expense which will directly benefit the work to be performed under the contract;

[(7) the extent to which the field of technology to be funded under the contract has been developed at the contractor's private expense;

[(8) the extent to which the Government intends to further develop to the point of commercial utilization the results of the contract effort;

[(9) the extent to which the contract objectives are concerned with the public health, public safety, or public welfare;

[(10) the likely effect of the waiver on competition and market concentration; and

[(11) in the case of a nonprofit educational institution, the extent to which such institution has a technology transfer capability and program, approved by the Administrator as being consistent with the applicable policies of this section.

[(e) In determining whether a waiver to the contractor or inventor of rights to an identified invention will best serve the interests of the United States and the general public, the Administrator shall specifically include as considerations paragraphs (4) through (11) of subsection (d) as applied to the invention and—

[(1) the extent to which such waiver is a reasonable and necessary incentive to call forth private risk capital for the development and commercialization of the invention; and

[(2) the extent to which the plans, intentions, and ability of the contractor or inventor will obtain expeditious commercialization of such invention.

[(f) Whenever title to an invention is vested in the United States, there may be reserved to the contractor or inventor—

[(1) a revocable or irrevocable nonexclusive, paid-up license for the practice of the invention throughout the world; and

[(2) the rights to such invention in any foreign country where the United States has elected not to secure patent rights and the contractor elects to do so, subject to the rights set forth in paragraphs (2), (3), (6), and (7) of subsection (h): Provided, That when specifically requested by the Administration and three years after issuance of such a patent, the contractor shall submit the report specified in subsection (h)(1) of this section.

[(g)(1) Subject to paragraph (2) of this subsection, the Administrator shall determine and promulgate regulation specifying the terms and conditions upon which licenses may be granted in any granted in any invention to which title is vested in the United States.

[(2) Pursuant to paragraph (1) of this subsection, the Administrator may grant exclusive or partially exclusive licenses in any invention only if, after notice and opportunity for hearing, it is determined that—

[(A) the interests of the United States and the general public will best be served by the proposed license, in view of the applicant's intentions, plans, and ability to bring the invention to the point of practical or commercial applications;

[(B) the desired practical or commerical applications have not been achieved, or are not likely expeditiously to be achieved, under any nonexclusive license which has been granted, or which may be granted, on the invention;

[(C) exclusive or partially exclusive licensing is a reasonable and necessary incentive to call forth risk capital and expenses to bring the invention to the point of practical or commercial applications; and

[(D) the proposed terms and scope of exclusivity are not substantially greater than necessary to provide the incentive for

bringing the invention to the point of practical or commercial applications and to permit the licensee to recoup its cost and a reasonable profit thereon:

Provided, That, the Administrator shall not grant such exclusive or partially exclusive license if he determines that the grant of such license will tend substantially to lessen competition or result in undue concentration in any section of the country in any line of commerce to which the technology to be licensed relates. The Administration shall maintain a publicly available, periodically updated record of determinations to grant such licenses.

[(h) Each waiver of rights or grant of an exclusive or partially exclusive license shall contain such terms and conditions as the Administrator may determine to be appropriate for the protection of the interests of the United States and the general public, including provisions for the following:

[(1) Periodic written reports at reasonable intervals, and when specifically requested by the Administration, on the commercial use that is being made or is intended to be made of the invention.

[(2) At least an irrevocable, nonexclusive, paid-up license to make, use, and sell the invention throughout the world by or on behalf of the United States (including any Government agency) and States and domestic municipal governments, unless the Administrator determines that it would not be in the public interest to acquire the license for the States and domestic municipal governments.

[(3) The right in the United States to sublicense any foreign government pursuant to any existing or future treaty or agreement if the Administor determines it would be in the national interest to acquire this right.

[(4) The reservation in the United States of the rights to the invention in any country in which the contractor does not file an application or patent within such time as the Administration shall determine.

[(5) The right in the Administrator to require the granting of a nonexclusive, exclusive, or partially exclusive license to a responsible applicant or applicants, upon terms reasonable under the circumstances, (A) to the extent that the invention is required for public use by governmental regulations, or (B) as may be necessary to fulfill health, safety, or energy needs, or (C) for such other purposes as may be stipulated in the applicable agreement.

[(6) The right in the Administrator to terminate such waiver or license in whole or in part unless the recipient of the waiver or license demonstrates to the satisfaction of the Administrator that he has taken effective steps, or within a reasonable time thereafter is expected to take such steps, necessary to accomplish substantial utilization of the invention.

[(7) The right in the Administrator, commencing three years after the grant of a license and four years after a waiver is effective as to an invention, to require the granting of a nonexclusive or partially exclusive license to a responsible applicant or applicants, upon terms reasonable under the circumstances, and in appropriate circumstances to terminate the waiver or

license in whole or in part, following a hearing upon notice thereof to the public, upon a petition by an interested person justifying such hearing—

[(A) if the Administrator determines, upon review of such material as he deems relevant, and after the recipient of the waiver or license, or other interested person, has had the opportunity to provide such relevant and material information as the Administrator may require, that such waiver or license has tended substantially to lessen competition or to result in undue concentration in any section of the country in any line of commerce to which the technology relates; or

[(B) unless the recipient of the waiver or license demonstrates to the satisfaction of the Administrator at such hearing that he has taken effective steps, or within a reasonable time thereafter is expected to take such steps, necessary to accomplish substantial utilization of the invention.

[(i) The Administrator shall provide an annual periodic notice to the public in the Federal Reggister, or other appropriate publiccation, of the right to have a hearing as provided by subsection (h)(7) of this section, and of the availability of the records of determinations provided in this section.

[(j) The Administrator shall, in granting waivers of licenses, consider the small business status of the applicant.

[(k) The Administrator is authorized to take all suitable and necessary steps to protect any invention or discovery to which the United States holds title, and to require that contractors or persons who acquire rights to inventions under this section protect such inventions.]

(l) The Administration shall be considered a defense agency of the United States for the purpose of chapter 17 of title 35 of the United States Code.

[(m) As used in this section—

(1) the term "person" means any individual, partnership, corporation, association, institution, or other entity;

(2) the term "contract" means any contract, grant, agreement, understanding, or other arrangement, which includes research, development, or demonstration work, and includes any assignment, substitution of parties, or subcontract executed or entered into thereunder;

(3) the term "made", when used in relation to any invention, means the conception or first actual reduction to practice of such invention;

(4) the term "invention" means inventions or discoveries, whether patented or unpatented; and

(5) the term "contractor" means any person having a contract with or on behalf of the Administration.

[(n) Within twelve months after the date of the enactment of this Act, the Administrator with the participation of the Attorney General, the Secretary of Commerce, and other officials as the President may designate, shall submit to the President and the appropriate congressional committees a report concerning the applicability of existing patent policies affecting the programs under

this Act, along with his recommendations for amendments or additions to the statutory patent policy, including his recommendations on mandatory licensing, which he deems advisable for carrying out the purposes of this Act.]

THE CONSUMER PRODUCT SAFETY ACT

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Sec. 4. Consumer Product Safety Commission.

[Sec. 5. Product safety information and research.]

Sec. 5. Repealed.

Sec. 6-Sec. 34. * * *

Section 5 of that Act

PRODUCT SAFETY INFORMATION AND RESEARCH

SEC. 5. (a)-(c) * * *

[(d) Whenever the Federal contribution for any information, research, or development activity authorized by this Act is more than minimal, the Commission shall include in any contract, grant, or other arrangement for such activity, provisions effective to insure that the rights to all information, uses, processes, patents, and other developments resulting from that activity will be made available to the public without charge on a nonexclusive basis. Nothing in this subsection shall be construed to deprive any person of any right which he may have had, prior to entering into any arrangement referred to in this subsection, to any patent, patent application, or invention.]

THE ACT OF APRIL 5, 1944

Section 3 of that Act

[SEC. 3. LICENSES AND PATENT RIGHTS.—

[The Secretary of the Interior is authorized to grant, on such terms as he may consider appropriae by subject to § 207 of the Federal Property and Administrative Services Act of 1949, licenses under patent rights acquired under this Act: Provided, That such licenses are consistent with the terms of the agreements by which such patent rights are acquired. No patent acquired by the Secretary of the Interior under this Act shall prevent any citizen of the United States, or corporation created under the laws of the United States or any State thereof, from using any invention, discovery, or process covered by such patent, or restrict such use by any such citizen or corporation, or be the basis of any claim against any such person or corporation on account of such use.]

THE SOLID WASTE DISPOSAL ACT

Section 8001 of that Act

SEC. 6981. (a)-(c)(2) * * *

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[(3) Any invention made or conceived in the course of, or under, any contract under this Act shall be subject to section 9 of the Federal Nonnuclear Energy Research and Development Act of 1974 to the same extent and in the same manner as inventions made or conceived in the course of contracts under such Act, except that in applying such section, the Environmental Protection Agency shall be substituted for the Energy Research and Development Administration and the words "solid waste" shall be substituted for the word "energy" where appropriate.]

(4) * * *

TITLE 35 OF THE UNITED STATES CODE

CHAPTER 38 OF THAT TITLE

Section 201 of that Chapter

SEC. 201. DEFINITIONS.—(a)–(c) * * *

(d) The term "invention" means any invention or discovery which is or may be patentable or otherwise protectable under this title *or any novel variety of plant which is or may be protectable under the Plant Variety Protection Act (7 U.S.C. 2321 et seq.).*

(e) The term "subject invention" means any invention of the contractor conceived or first actually reduced to practice in the performance of work under a funding agreement: *Provided, That, in the case of a variety of plant, the date of determination (as defined in section 41(d) of the Plant Variety Protection Act (7 U.S.C. 2401(d)) must also occur during the period of contract performance.*

(f)–(i) * * *

Section 202 of that Chapter

SEC. 202. DISPOSITION OF RIGHTS.—

(a) Each nonprofit organization or small business firm may, within a reasonable time after disclosure as required by paragraph (c)(1) of this section, elect to retain title to any subject invention: Provided, however, That a funding agreement may provide otherwise (i) [when the funding agreement is for the operation of a Government-owned research or production facility,] *when the contractor is not located in the United States or does not have a place of business located in the United States,* (ii) in exceptional circumstances when it is determined by the agency that restriction or elimination of the right to retain title to any subject invention will better promote the policy and objectives of this chapter [or (iii)] , *(iii) when the funding agreement is entered into under a program that implements a formal international agreement or arrangement of cooperation in science and technology, and rights in the Government greater than a non-exclusive license are necessary for the agency to fulfill its obligations under the international agreement or arrangement; or (iv);* when it is determined by a Government authority which is authorized by statute or Executive order to conduct foreign intelligence or counter-intelligence activities that the restriction or elimination of the right to retain title to any subject invention is necessary to protect the security of such activities. The rights of the nonprofit organization or small business firm shall be

subject to the provisions of paragraph (c) of this section and the other provisions of this chapter.

[(b)(1) Any determination under (ii) of paragraph (a) of this section shall be in writing and accompanied by a written statement of facts justifying the determination. A copy of each such determination and justification shall be sent to the Comptroller General of the United States within thirty days after the award of the applicable funding agreement. In the case of determinations applicable to funding agreements with small business firms copies shall also be sent to the Chief Counsel for Advocacy of the Small Business Administration.

[(2) If the Comptroller General believes that any pattern of determinations by a Federal agency is contrary to the policy and objectives of this chapter or that an agency's policies or practices are otherwise not in conformance with this chapter, the Comptroller General shall so advise the head of the agency. The head of the agency shall advise the Comptroller General in writing within one hundred and twenty days of what action, if any, the agency has taken or plans to take with respect to the matters raised by the Comptroller General.

[(3) At least once each year, the Comptroller General shall transmit a report to the Committees on the Judiciary of the Senate and House of Representatives on the manner in which this chapter is being implemented by the agencies and on such other aspects of Government patent policies and practices with respect to federally funded inventions as the Comptroller General believes appropriate.]

(b)(1) The rights of the Government under paragraph (a) of this section shall not be exercised by a Federal agency unless it first determines that at least one of the conditions identified in subparagraphs (i)-(iv) of paragraph (a) exists. Except in the case of paragraph (a)(iv), the agency shall file with the Secretary of Commerce, within 30 days after the award of the applicable funding agreement, a statement stating such determination. In the case of a determination under paragraphs (a)(ii) or (iii), the statement shall include an analysis justifying the determination. If the Secretary of Commerce believes that any individual determination or pattern of determinations is contrary to the policies and objectives of this chapter or otherwise not in conformance with this chapter, the Secretary shall so advise the head of the agency concerned and the Administrator of the Office of Federal Procurement Policy, and recommend corrective actions.

(2) Whenever the Administrator of the Office of Federal Procurement Policy has determined that one or more Federal agencies are utilizing the authority of subparagraphs (i)-(iv) of paragraph (a) of this section in a manner that is contrary to the policies and objectives of this chapter, the Administrator is authorized to issue regulations describing classes of situations in which agencies may not exercise the authorities of those subparagraphs.

(4) * * *

(5) The right of the Federal agency to require periodic reporting on the utilization or efforts at obtaining utilization that are being made by the contractor or his licensees or assignees: Provided, That any such information [may] *as well as any information on*

utilization or efforts at obtaining utilization obtained as part of a proceeding under section 203 of this chapter shall be treated by the Federal agency as commercial and financial information obtained from a person and privileged and confidential and not subject to disclosure under section 552 of title 5 of the United States Code.

(6) * * *

(7) In the case of a nonprofit organization, (A) a prohibition upon the assignment of rights to a subject invention in the United States without the approval of the Federal agency, except where such assignment is made to an organization which has as one of its primary functions the management of inventions and which is not, itself, engaged in or does not hold a substantial interest in other organizations engaged in the manufacture or sale of products or the use of processes that might utilize the invention or be in competition with embodiments of the invention (provided that such assignee shall be subject to the same provisions as the contractor); **[**(B) a prohibition against the granting of exclusive licenses under United States Patents or Patent Applications in a subject invention by the contractor to persons other than small business firms for a period in excess of the earlier of five years from first commercial sale or use of the invention or eight years from the date of the exclusive license excepting that time before regulatory agencies necessary to obtain premarket clearance unless, on a case-by-case basis, the Federal agency approves a longer exclusive license. If exclusive field of use licenses are granted, commercial sale or use in one field of use shall not be deemed commercial sale or use as to other fields of use, and a first commercial sale or use with respect to a product of the invention shall not be deemed to end the exclusive period to different subsequent products covered by the invention;**]** **[**(C)**]** *(B)* a requirement that the contractor share royalties with the inventor; and **[**(D)**]** *(C)* a requirement that the balance of any royalties or income earned by the contractor with respect to subject inventions, after payment of expenses (including payments to inventors) incidental to the administration of subject inventions, be utilized for the support of scientific research or education.

(8) * * *

(d)–(f) * * *

(g) A Federal agency may at any time waive all or any part of the rights of the United States under paragraphs (c)(4)–(8) of this section, section 203, and section 204 of this chapter to any subject invention or class of subject inventions made or which may be made under a funding agreement or class of funding agreements if the agency determines (A) that the interests of the United States and the general public will be best served thereby; or (B) the funding agreement involves cosponsored, cost sharing or joint venture research or development when the contractor or other sponsor or joint venturer is required to make or has made a substantial contribution of funds, facilities, or equipment to the work performed under the funding agreement. The agency shall maintain a record, which shall be made public and periodically updated, of determinations made under this paragraph. In making such determinations under clause (A) of this paragraph, the agency shall consider at least the following objectives:

(1) encouraging the wide availability to the public of the benefits of the experimental, developmental, or research programs in the shortest practicable time;

(2) promoting the commercial utilization of such inventions;

(3) encouraging participation by private persons, including the most highly qualified persons, in Government-sponsored experimental, developmental, or research programs; and

(4) fostering competition and preventing the creation or maintenance of other situations inconsistent with the antitrust laws.

Section 203 of that Chapter

SEC. 203. MARCH-IN RIGHTS.—

With respect to any subject invention in which a small business firm or nonprofit organization has acquired title under this chapter, the Federal agency under whose funding agreement the subject invention was made shall have the right, in accordance with such procedures as are provided in regulations promulgated hereunder to require the contractor, an assignee or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the contractor, assignee, or exclusive licensee refuses such request, to grant such a license itself, if the Federal agency determines that such—

(a) action is necessary because the contractor or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use;

(b) action is necessary to alleviate health or safety needs which are not reasonably satisfied by the contractor, assignee, or their licensees;

(c) action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the contractor, assignee, or licensees; or

(d) action is necessary because the agreement required by section 204 has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of its agreement obtained pursuant to section 204.

A determination pursuant to this section shall not be considered a contract dispute and shall not be subject to the Contract Disputes Act (41 U.S.C. 601 et seq.). Any contractor, assignee, or exclusive licensee adversely affected by a determination under this section may, at any time within sixty days after the determination is issued, file a petition in the United States Court of Claims, which shall have jurisdiction to determine the matter de novo and to affirm, reverse, or modify as appropriate, the determination of the Federal agency.

Section 209 of that Chapter

SEC. 209. RESTRICTIONS ON LICENSING OF FEDERALLY OWNED INVENTIONS.—

(a)–(c)(1) * * *

[(2) A Federal agency shall not grant such exclusive or partially exclusive license under paragraph (1) of this subsection if it determines that the grant of such license will tend substantially to lessen competition or result in undue concentration in any section of the country in any line of commerce to which the technology to be licensed relates, or to create or maintain other situations inconsistent with the antitrust laws.]

[(3)] *(2)* First preference in the exclusive or partially exclusive licensing of federally owned inventions shall go to small business firms submitting plans that are determined by the agency to be within the capabilities of the firms and equally likely, if executed, to bring the invention to practical application as any plans submitted by applicants that are not small business firms.

(d) After consideration of whether the interests of the Federal Government or United States industry in foreign commerce will be enhanced, any Federal agency may grant exclusive or partially exclusive licenses in any invention covered by a foreign patent application or patent, after public notice and opportunity for filing written objections[, except that a Federal agency shall not grant such exclusive or partially exclusive license if it determines that the grant of such license will tend substantially to lessen competition or result in undue concentration in any section of the United States in any line of commerce to which the technology to be licensed relates, or to create or maintain other situations inconsistent with antitrust laws.].

THE STEVENSON-WYDLER TECHNOLOGY INNOVATION ACT OF 1980

Section 6 of that Act

SEC. 6. CENTERS FOR INDUSTRIAL TECHNOLOGY.—

(a)-(d) * * *

[(e) Research and development utilization. (1) To promote technological innovation and commercialization of research and development efforts, each Center has the option of acquiring title to any invention conceived or made under the auspices of the Center that was supported at least in part by Federal funds: Provided, That—

[(A) the Center reports the invention to the supporting agency together with a list of each country in which the Center elects to file a patent application on the invention;

[(B) said option shall be exercised at the time of disclosure of invention or within such time thereafter as may be provided in the grant or cooperative agreement;

[(C) the Center intends to promote the commercialization of the invention and file a United States patent application;

[(D) royalties be used for compensation of the inventor or for educational research activities of the Center;

[(E) the Center make periodic reports to the supporting agency, and the supporting agency may treat information contained in such reports as privileged and confidential technical, commercial, and financial information and not subject to disclosures under the Freedom of Information Act; and

[(F) any Federal department or agency shall have the royalty-free right to practice, or have practiced on its behalf, the invention for governmental purposes.

The suporting agency shall have the right to acquire title to any patent on an invention in any country in which the Center elects not to file a patent application or fails to file within a reasonable time.

[(2) Where a Center has retained title to an invention under paragraph (1) of this subsection the supporting agency shall have the right to require the Center or its licensee to grant a nonexclusive, partially exclusive, or exclusive license to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, if the supporting agency determines, after public notice and opportunity for hearing, that such action is necessary—

[(A) because the Center or licensee has not taken and is not expected to take timely and effective action to achieve practical application of the invention;

[(B) to meet health, safety, environmental, or national security needs which are not reasonably satisfied by the contractor or licensee; or

[(C) because the granting of exclusive rights in the invention has tended substantially to lessen competition or to result in undue market concentration in the United States in any line of commerce to which the technology relates.

[(3) Any individual, partnership, corporation, association, institution, or other entity adversely affected by a supporting agency determination made under paragraph (2) of this subsection may, at any time within 60 days after the determination is issued, file a petition to the United States Court of Claims which shall have jurisdiction to determine that matter de novo and to affirm, reverse, or modify as appropriae, the determination of the supporting agency.]

(f) * * *

THE ACT OF JUNE 29, 1935

Section 10 of that Act

SEC. 10. AGRICULTURAL RESEARCH; AUTHORIZATION OF ADDITIONAL APPROPRIATIONS; ADMINISTRATIVE EXPENSES; AVAILABILITY OF SPECIAL RESEARCH FUND.—

(a) In order to carry out further research on utilization and associated problems in connection with the development and application of present, new, and extended uses of agricultural commodities and products thereof authorized by section 1 of this title, and to disseminate information relative thereto, and in addition to all other appropriations authorized by this title there is hereby authorized to be appropriated the following sums:

(1) $3,000,000 for the fiscal year ending June 30, 1947, and each subsequent fiscal year.

(2) An additional $3,000,000 for the fiscal year ending June 30, 1948, and each subsequent fiscal year.

(3) An additional $3,000,000 for the fiscal year ending June 30, 1949, and each subsequent fiscal year.

(4) An additional $3,000,000 for the fiscal year ending June 30, 1950, and each subsequent fiscal year.

(5) An additional $3,000,000 for the fiscal year ending June 30, 1951, and each subsequent fiscal year.

(6) In addition to the foregoing, such additional funds beginning with the fiscal year ending June 30, 1952, and thereafter, as the Congress may deem necessary.

The Secretary of Agriculture, in accordance with such regulations as he deems necessary, and when in his judgment the work to be performed with be carried out more effectively, more rapidly, or at less cost than if performed by the Department of Agriculture, may enter into contracts with such public or private organizations or individuals as he may find qualified to carry on work under this section without regard to the provisions of section 3709, Revised Statutes, and with respect to such contracts he may make advance progress or other payments without regard to the provisions of section 3648, Revised Statutes. Contracts hereunder may be made for work to continue not more than four years from the date of any such contract. Notwithstanding the provisions of section 5 of the Act of June 20, 1874, as amended (31 U.S.C. 713), any unexpended balances of appropriations properly obligated by contracting with an organization as provided in this subsection may remain upon the books of the Treasury for not more than five fiscal years before being carried to the surplus fund and covered into the Treasury. Research authorized under this subsection shall be conducted so far as practicable at laboratories of the Department of Agriculture. Projects conducted under contract with public and private agencies shall be supplemental to and coordinated with research of these laboratories. [Any contracts made pursuant to this authority shall contain requirements making the results of research and investigations available to the public through dedication, assignment to the Government, or such other means as the Secretary shall determine.]

(b)-(e) * * *

The Federal Mine Safety and Health Act of 1977

Section 427 of that Act

Sec. 427. Contracts for Clinics; Research and Grants for Research in Pulmonary Diseases; Appropriation of Funds.—

(a) * * *

(b) The Secretary of Health, Education, and Welfare shall initiate research within the National Institute for Occupational Safety and Health, and is authorized to make research grants to public and private agencies and organizations and individuals for the purpose of devising simple and effective tests to measure, detect, and treat respiratory and pulmonary impairments in active and inactive coal miners. [Any grant made pursuant to this subsection shall be conditioned upon all information, uses, products, processes, patents, and other developments resulting from such research being available to the general public, except to the extent of such exceptions and limitations as the Secretary of Health, Education, and Welfare may deem necessary in the public interest.]

(c) * * *

THE SURFACE MINING CONTROL AND RECLAMATION ACT OF 1977

Section 306 of that Act

SEC. 306. MISCELLANEOUS PROVISIONS.—
(a)–(c) * * *
(d) Uses, products, etc., of research available to general public; background patents; appropriations for publication of results. [No research, demonstration, or experiment shall be carried out under this Act by an institute financed by grants under this Act, unless all uses, products, processes, patents, and other developments resulting therefrom, with such exception or limitation, if any, as the Secretary may find necessary in the public interest, be available promptly to the general public. Nothing contained in this section shall deprive the owner of any background patent relating to any such activities of any rights which that owner may have under that patent.] There are authorized to be appropriated such sums as are necessary for the printing and publishing of the results of activities carried out by institutes under the provisions of this Act and for administrative planning and direction, but such appropriations shall not exceed $1,000,000 in any fiscal year: *Provided,* That no new budget authority is authorized to be appropriated for fiscal year 1977.

THE FEDERAL FIRE PREVENTION AND CONTROL ACT OF 1974

Section 21 of that Act

SEC. 21. ADMINISTRATIVE PROVISIONS.—
(a)–(c) * * *
[(d) Inventions and discoveries. All property rights with respect to inventions and discoveries, which are made in the course of or under contract with any government agency pursuant to this Act, shall be subject to the basic policies set forth in the President's Statement of Government Patent Policy issued August 23, 1971, or such revisions of that statement of policy as may subsequently be promulgated and published in the Federal Register.]
(e) * * *

SOLAR PHOTOVOLTAIC ENERGY RESEARCH, DEVELOPMENT, AND DEMONSTRATION ACT OF 1978

Section 6 of that Act

SEC. 6. SELECTION OF AVAILABLE PHOTOVOLTAIC SYSTEMS AND COMPONENTS; CONTRACTS AND GRANTS.—
(a) * * *
(b) The Secretary, in accordance with the applicable provisions of sections [7, 8, and 9] *7 and 8* of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5901 et seq.) and with such program guidelines as the Secretary may establish, shall—

(1) enter into such contracts and grants as may be necessary or appropriate for the development for commercial production

and utilization of photovoltaic components and systems, including any further planning and design which may be required to conform with the specifications set forth in any applicable criteria;

(2) select, as being compatible with the design concepts chosen under subsection (a)(2) of this section, a reasonable number of photovoltaic components and systems; and

(3) enter into contracts with a number of persons or firms for the procurement of photovoltaic components and systems, including adequate numbers of spare and replacement parts for such systems.

THE NATIVE LATEX COMMERCIALIZATION AND ECONOMIC DEVELOPMENT ACT OF 1978

Section 12 of that Act

[SEC. 12. Relative to the definitions of, title to, and licensing of inventions made or conceived in the course of or under any contract or grant pursuant to this Act, and notwithstanding any other provisions of law, the provisions of section 9 and 10 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5908-9) shall govern.]

THE WATER RESEARCH AND DEVELOPMENT ACT OF 1978

Section 408 of that Act

[SEC. 408. PATENT POLICY.—

With respect to patent policy and to the definition of title to, and licensing of inventions made or conceived in the course of, or under any contract or grant pursuant to this Act, and notwithstanding any other provision of law, the Secretary shall be governed by the provisions of sections 9 and 10 of the Federal Nonnuclear Energy, Research, and Development Act of 1974 (Public Law 93-577; 88 Stat. 1887, 1891; 42 U.S.C. 5908, 5909): *Provided however,* That subsections *(l)* and (n) of section 9 of such Act shall not apply to this Act: *Provided further, however,* That, subject to the patent policy of section 408, all research or development contracted for, sponsored, cosponsored, or authorized under authority of this Act, shall be provided in such manner that all information, data, and knowhow, regardless of their nature or mediums, resulting from such research and development will (with such exceptions and limitations, if any, as the Secretary may find to be necessary in the interest of national defense) be usefully available for practice by the general public consonant with the purpose of this Act.]

THE UNITED STATES SYNTHETIC FUELS CORPORATION ACT OF 1980

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Sec. 172. Coordination with Federal entities.

[Sec. 173. Patents.]

Sec. 173. Repealed.

Sec. 174.-805. * * *

Section 173 of that Act

[SEC. 173. PATENTS.—

[(a) Any contract to provide financial assistance under subtitle D in the form of a loan, a loan guarantee, or a joint venture may, in the judgment of the Board of Directors, require that whenever any invention is made or conceived in the course of or under such contract, title to the patent for such invention shall vest in the Corporation. The Corporation shall have the right to license the patent on a nonexclusive basis.

[(b)(1) The Corporation may grant a nonexclusive license for the use of any invention for which it holds the patent but it may not grant an exclusive or partially exclusive license except as provided in paragraph (2).

[(2) The Corporation is authorized to grant an exclusive or partially exclusive license for the use of any invention for which it holds the patent to a responsible applicant or applicants, upon terms reasonable under the circumstances, on the basis of competitive bids and following an opportunity for a hearing, upon notice in the Federal Register thereof to the public, only when, in the judgment of the Board of Directors, such exclusive or partially exclusive license is necessary to assure substantial utilization of such invention within a reasonable time.

[(c) Each exclusive or partially exclusive license for the use of an invention granted under subsection (b) shall contain such terms and conditions as the Corporation may determine to be appropriate for the protection of the interests of the United States and the general public, including provision for the Corporation, commencing two years after the grant of a license pursuant to subsection (b), to terminate such license if (1) it has not been applied to the commercialization of domestic energy resources or (2) steps have not been taken as necessary to assure substantial utilization of such invention within a reasonable time.

[(d) Loan or loan guarantee agreements entered into pursuant to sections 132 and 133, respectively, shall include such terms and conditions consistent with this subsection with respect to patents as the Corporation deems appropriate to protect the interests of the Corporation in the case of default. Such agreements shall require in the case of default that all patents, technology, and other proprietary rights resulting from the synthetic fuel project shall be available to the Corporation or its designee, to complete and operate the defaulting project. Such agreements shall contain a provision specifying that other patents, technology, and other proprietary rights

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owned by the borrower which are necessary for the purpose of completion and operation of the synthetic fuel project shall be licensed to the Corporation and its designees on equitable terms, including due consideration to the amount of the default payments due to the Corporation.

[(e) Patents, technology, and proprietary rights vested in the Corporation as a result of default on a loan or loan guarantee agreement or vested in the Corporation pursuant to subsection (a) shall be transferred to the Secretary of Energy for administration under applicable law upon termination and liquidation of the Corporation.

[(f)(1) Any contract entered into by the Corporation pursuant to subtitle E shall be subject to subsections (a) through (m) of section 9 of the Federal Non-Nuclear Energy Research and Development Act of 1974 (42 U.S.C. 5908(a) through (m)). In applying such subsections to subtitle E.—

[(A) the term "Administrator" in such subsections shall mean the Chairman of the Board of Directors;

[(B) the term "Administration" in such subsections shall mean the Corporation;

[(C) the term "United States" in such subsections shall mean the Corporation;

[(D) the term "Government" in subsections (a) and (d) of such sections shall include the Corporation for purposes of such subsection; and

[(E) the term "any Government agency" in subsection (h)(2) of such section shall mean the United States.

[(2) Section 9 of the Federal Non-Nuclear Energy Research and Development Act of 1974 shall not apply to financial assistance granted pursuant to subtitle D.

[(g) The United States Government shall have a royalty-free, nonexclusive license to any invention in which the Corporation owns title or reserves a license pursuant to subsection (a). The Corporation may assign title to any invention in which it has the title to the United States Government.]

ADDITIONAL VIEWS OF MR. INOUYE

It is the purpose of this bill to establish and maintain a uniform Federal policy for managing and utilizing the results of federally sponsored science and technology research developments.

I support this legislation and voted for it at the Executive Session since there clearly are instances in which the lack of a Federal policy towards the commercialization of discoveries made during federally sponsored research and development has discouraged marketing. We must provide incentives for American companies to market such discoveries after they have satisfactorily completed their contracts with the Federal Government.

However, the blame for not exploiting the global market fully cannot be laid solely or primarily on the doorstep of the Federal Government. Sometimes companies have unwisely parted with their research results or have been unwilling to export or invest abroad and have licensed their results to foreign companies. Through such behavior they have transferred U.S. developed technology, unwittingly created potential competitors, and failed to exploit their discoveries to the maximum possible extent.

I realize that "technology transfer" as a discrete issue is not the subject of this bill. Nevertheless, I do think that we should keep this phenomenon in mind in developing technology policy.

Title III of this bill specifies the rights of the government. It should be made clear that the agency which has the authority to negotiate with the private party on the terms of the commercialization should ask how the technology will be marketed overseas. To stimulate domestic employment and provide for a maximum return, it would be preferable in most cases that technology not simply be licensed abroad unless there were no other way in which it could be exploited.

In a limited number of instances, the policies pursued by a private firm may not be in the best interests of the country as a whole. In future activities, I hope that the Committee will explore the ramifications of technology transfer—both inward and outward. The commercialization of technology lies on a complex spectrum of science and technology policy issues, and I believe it must be considered in the context of spurring U.S. innovation generally.

DANIEL K. INOUYE.

MINORITY VIEWS OF MR. LONG

This legislation represents the most recent in the continuing series of efforts to take from the public the benefits of federally financed research and development. The disposition of rights resulting from government research and development can increase monopoly and the concentration of economic power or, alternatively, can spread the resulting benefits throughout society with consequent benefit to the maintenance of a competitive free enterprise system and more rapid economic growth.

Until recently, the Congress had always recognized these principles. Until recently, Congress had always provided that the U.S. Government should acquire title and full right of use and disposition of scientific and technical information obtained and inventions made at its direction and its expense. The basic premise was that inventions should belong to those who pay to have them created. Without exception, witnesses testified that when a private company finances its own research and development, it takes the risk and retains the exclusive right to the fruits of that risk. This proposed legislation treats the public in a manner which no private business would tolerate. It is simply a giveaway of public rights for the benefit of private industry.

Admiral Hyman G. Rickover, widely recognized as an expert in government finance research and development, has joined me on many occasion in opposing similar legislation. I commend to my colleagues his statement before our committee in opposition to this ill-conceived proposal which follows.

STATEMENT OF ADM. HYMAN G. RICKOVER, DEPARTMENT OF THE NAVY, NAVAL SEA SYSTEMS COMMAND

Admiral RICKOVER. For the past quarter of a century, various bills have been introduced in Congress proposing to give large Government contractors monopoly rights to inventions they develop at Government expense. These bills are proposed in the name of promoting technology, productivity, and economic growth for the Nation. Proponents of such legislation characterize the present policy under which the Government retains for use by all citizens the rights to patents developed at Government expense, as an unwarranted intervention by Government in the free enterprise system.

It is contended that only a small number of Government-owned patents are being used, that the public, therefore, is not getting maximum advantaged of the large sums it invested in Government-funded R. & D., and that this is stifling technology by not getting the ideas contained in these patents to the marketplace. Their proposed solution is to let the Government contractors, large and

small, have monopoly rights to inventions developed under Government contracts at Government expense.

The premise behind this proposal is that with monopoly rights to the inventions, contractors will have an incentive to develop and market inventions that otherwise would not be used.

I recommend that Congress not enact S. 1657. After more than 40 years of dealing with contractors, as well as R. & D. work in a high technology area, I am convinced that contractors, particularly large companies, should not be given title to Government-financed inventions. I believe that enactment of this bill would constitute a subsidy of large Government contractors and reduce competition. Companies that contract for R. & D. work generally insist on retaining title to all inventions that may result under the contract. In other words, the rights belong to the party that pays for the work.

But for Government contracts, however, this bill would reverse the situation. The one who received the contract, rather than the one who paid for the work, would retain the patent rights. This is one basic point. We're setting up two rules of justice. One that takes care of the large corporations who have lots of money and the other one that gives them some more money at the expense of the individual public who paid for it.

That's my main objection to this bill. Congress, by enacting this bill, would have two sets of laws, one for the rich; one for poor.

If we carry this idea to its logical extension, companies should give their employees the rights to inventions developed in the course of their employment. Few do.

Many Members of Congress are in favor of minimizing Government intervention in the marketplace. This bill, however, would increase such intervention. The large sums that the Government spends on R. & D. work, particularly by the Department of Defense, has an unavoidable impact in the private sector. It is inevitable that the lion's share of Government R. & D. expenditures will continue to go to large corporations, since they alone have the facilities, resources, and background necessary to undertake most major R. & D. programs.

These contracts provide know-how and experience that give these firms a leg up on potential competitors. To go a step further and give these contractors monopoly rights to the technology that results from this work, is to promote an even greater concentration of economic and political power in large corporations. And that's the very thing that all people running for the House or the Senate are always talking about: The equity of the public. When we come to enact laws though, which cannot easily be understood by the public, then we do the opposite.

The sole purpose of a patent is to restrict others from using an idea. Some large companies, therefore, flood their field of technology with patents covering even minor details and concepts of dubious value. This is so-called defensive patenting. This deters potential competitors from entering into the new field. They fear getting bogged down in patent infringement suits, which could consume large sums in legal fees, as well as years of delay. The bill would serve to encourage large contractors to extend this practice into

the Government contract work, to the detriment of their competitors, particularly to the detriment of small business.

Last year Congress passed the University and Small Business Patent Procedures Act. The act gives universities and small businesses title to the patents they develop at Government expense. In testifying on that bill, I pointed out that large corporations would try to extend to themselves the same special benefits Congress established under the act for small businesses and universities.

The bill you are now considering does exactly this very thing. It reverses the previous legislation by increasing the advantage the large contractors already have over small businesses. I cannot comprehend why Congress would change our laws so that the large defense contractors, companies such as General Dynamics, McDonnell-Douglas, United Technologies, and many others, could more effectively establish monopoly positions in their fields of technology.

There is already far too much concentration of defense business in these large corporations. They already enjoy advantages that are not available to the smaller companies. I do not subscribe to the notion that patent monopolies are necessary to promote technology. Good ideas tend to be used with or without patents. There will always be inventors who contend that they have a wonderful invention no one will finance, if they cannot get exclusive patent rights. My experience, however, is that over many years, about a quarter of a century, that behind the euphoric claims of these inventors are very practical problems. And that the reason their idea is not adopted often has little, if anything, to do with the patent aspects.

As I see it, the purpose of Government in acquiring title to patents is not to earn money from the patent or for the Government to become the salesman or promoter of the inventions; rather, the purpose is to insure that the public is not prevented from using inventions for which it has paid, that is, the people have paid.

Perhaps the same objective could be achieved by legislation that would make any inventions developed at Government expense unpatentable, except those that we need to prevent foreigners from using them. Alternatively, if Congress ultimately decides that granting exclusive rights will promote the use of worthwhile technology, it should set up a system to dispense these rights by public sale through competitive bidding. In that way, every citizen interested in the invention would have an equal opportunity to buy the rights.

The question might arise, if there's little evidence that Government-owned patents are being used, if the vast majority of them are of little commercial value, and if you think the Government should not view these patents as income-generating devices, what is wrong with letting large Government contractors have them?

The answer is twofold:

First, it would be wrong, in my opinion, for the Government to finance an important breakthrough, say, in the field of energy conservation, only to find itself in the position where the contractor has a 17-year monopoly during which time he alone, for all practical purposes, could decide whether to make it available for public use and at what price;

Second, large Government contractors would have a strong incentive to file patent applications covering even insignificant items encountered in their Government contracts. By so doing, they could further discourage competition in their fields, regardless of the merits of these patents or whether they would survive a court test.

No doubt, you have been told that the Government patent policy deters companies from undertaking Government work, yet in more than a quarter of a century, I cannot recall a single case of a contractor turning down work for the naval nuclear propulsion program because of our policy of retaining rights to Government patents.

Although patent lawyers have a strong interest in such such matters, I have also found that the top officials of most companies with whom I deal do not consider patents a major problem. They want the work because of the profit potential it offers, and because it enhances their experience and know-how.

The bill you are considering today is virtually identical to the one on which I testified before the Senate Commerce Committee during the last session of Congress. With your permission, I would like to insert into the record my statement at those hearings, since it covers some of the points I make in greater detail. I would like permission to do that.

I will be glad to answer any questions that you may have. I purposely made my statement very brief, because I know you're very busy.

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